

## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

What is claimed is:

1. (Currently Amended) A method of providing to a client communications device ~~access to a subscription module of~~ by a server communications device, access to a network, the server communications device comprising a subscription module for facilitating authentication of a subscriber to the network, the method comprising the steps of:

establishing a communications link between the client communications device and the server communications device; and

~~communicating a number of messages (M) comprising data related to the subscription module between the server communications device and the client communications device via the communications link;~~

~~wherein the method further comprises the step of providing integrity protection of the messages communicated between the server communications device and the client communications device via the communications link.~~

receiving a message by the server communications device from the client communications device via the communications link, the message being addressed to the subscription module;

performing, by a processing means of the server communications device outside the subscription module, the following steps:

providing integrity protection of the received message to determine whether the received message is authentic;

determining whether the received message is authorized to address the subscription module; and

forwarding the received message to the subscription module, if the processing means of the server communications device has determined the received message as being authentic and if the processing means of the server communications device has determined the received message as being authorized to address the subscription module; otherwise rejecting the received message.

2. (Previously Presented) The method according to claim 1, wherein the step of providing integrity protection further comprises calculating, based on a secret session key, a respective message authentication code for each of the communicated messages; and including the calculated message authentication code into the corresponding communicated message.

3. (Previously Presented) The method according to claim 1, wherein the step of establishing a communications link between the client and server communications devices comprises determining a secret session key based on a shared secret between the server and client communications devices.

4. (Previously Presented) The method according to claim 3, wherein the method further comprises providing the shared secret by performing a secure pairing procedure including receiving a passcode by at least one of the client communications device and the server communications device.

5. (Previously Presented) The method according to claim 4, wherein the passcode is at the most 48 bits long.

6. (Previously Presented) The method according to claim 3, wherein the communications link has a secret link key related to it and the method further comprises providing the shared secret by calculating the shared secret using the secret link key as an input.

7. (Previously Presented) The method according to claim 2, wherein the method further comprises:

incorporating a value of a first counter in each of the messages communicated from the client communications device to the server communications device, the first counter being indicative of the number of messages communicated from the client communications device to the server communications device; and

incorporating a value of a second counter in each of the messages communicated from the server communications device to the client communications device, the second counter being indicative of the number of messages communicated from the server communications device to the client communications device; and

wherein the step of calculating a respective message authentication code for each of the communicated messages comprises calculating a message authentication code for each of the communicated messages and the corresponding counter value.

8. (Previously Presented) The method according to claim 1, wherein the method further comprises determining, for the messages communicated from the client communications device to the server communications device, whether the message is authorized to address the subscription module.

9. (Previously Presented) The method according to claim 8, wherein the method further comprises:

providing a shared secret between the client communications device and the server communications device; and

providing an access control list stored in the server communications device in relation to at least one of the shared secret and the client communications device.

10. (Currently Amended) A communications system, comprising:  
a client communications device and a server communications device adapted to provide to the client communications device access to a network, the server communications device including a subscription module for facilitating authentication of

a subscriber to the network, the client and server communications devices each comprising respective communications means for establishing a communications link between the client communications device and the server communications device, and for communicating a number of messages comprising data related to the subscription module between the server communications device and the client communications device via the communications link, the messages from the client communications device to the server communications device being addressed to the subscription module;

~~wherein the client communications device and the server communications device each comprise respective processing means adapted to provide integrity protection of the messages communicated between the server communications device and the client communications device via the communications link.~~

the client communications device and the server communications device each comprise respective processing means outside the subscription module adapted to provide integrity protection of the messages communicated between the client communications device and the server communications device via the communications link to determine whether a message received is authentic; and the processing means of the server communications device is further operable to:

determine whether the received message is authorized to address the subscription module; and

forward the received message to the subscription module, if the processing means of the server communications device has determined the received message is authentic and if the processing means of the server communications device has determined the received message as being authorized to address the subscription module; otherwise rejecting the received message.

11. (Currently Amended) ~~A server communications device including a subscription module, the server communications device comprising communications means for establishing a communications link with a client communications device, and for communicating a number of messages comprising data related to the subscription~~

~~module between the server communications device and the client communications device via the communications link;~~

~~wherein the server communications device comprises processing means adapted to provide integrity protection of the messages communicated between the server communications device and the client communications device via the communications link.~~

for providing to a client communications device access to a network, the server communications device including a subscription module for facilitating authentication of a subscriber to access to the network, the server communications device comprising communications means for establishing a communications link with a client communications device, and for receiving a number of messages from the client communications device via the communications link, the messages being addressed to the subscription module;

the server communications device further comprising a processing means outside the subscription module operable to (i) provide integrity protection of the messages received from the client communications device via the communications link to determine whether a message received by the server communications device is authentic; (ii) determine whether the received message is authorized to address the subscription module; and (iii) forward the received message to the subscription module, if the processing means of the server communications device has determined the received message is authentic and if the processing means of the server communications device has determined the received message is authorized to address the subscription module; otherwise rejecting the received message.

12. (Previously Presented) A client communications device for providing access to a subscription module of a server communications device, the client communications device comprising communications means for establishing a communications link with the server communications device including the subscription module, and for communicating a number of messages comprising data related to the

subscription module between the client communications device and the server communications device via the communications link;

wherein the client communications device comprises processing means adapted to provide integrity protection of the messages communicated between the client communications device and the server communications device via the communications link.

13. (Previously Presented) A method of providing to a client communications device access to a subscription module by a server communications device comprising the subscription module, the method comprising the steps of

establishing a communications link between the client communications device and the server communications device;

receiving a number of messages from the client communications device by the server communications device via the communications link, the messages addressing the subscription module; and

wherein the method further comprises the step of determining, for at least one of the received messages, whether the message is authorized to address the subscription module.

14. (Previously Presented) The method according to claim 13, wherein the method further comprises providing integrity protection of the messages communicated between the server communications device and the client communications device via the communications link, where the integrity protection is based on a shared secret between the client communications device and the server communications device; and providing an access control list stored in the server communications device in relation to at least one of the shared secret and the client communications device.

15. (Previously Presented) The method according to claim 14, wherein the access control list is stored in a protected database.

16. (Previously Presented) The method according to claim 14, wherein the method further comprises calculating, based on a secret session key, a respective message authentication code for each of the communicated messages; and including the calculated message authentication code into the corresponding communicated message.

17. (Previously Presented) The method according to claim 16, wherein the step of establishing a communications link between the client and server communications devices comprises determining the secret session key based on said shared secret between the server and client communications devices.

18. (Previously Presented) The method according to claim 17, wherein the method further comprises providing the shared secret by performing a secure pairing procedure including receiving a passcode by at least one of the client communications device and the server communications device.

19. (Previously Presented) The method according to claim 18, wherein the passcode is at the most 48 bits long.

20. (Previously Presented) The method according to claim 18, wherein the communications link has a secret link key related to it and the method further comprises providing the shared secret by calculating the shared secret using the secret link key as an input.

21. (Previously Presented) The method according to claim 14, wherein the method further comprises:

incorporating a value of a first counter in each of the messages communicated from the client communications device to the server communications device, the first counter being indicative of the number of messages communicated from the client communications device to the server communications device;

incorporating a value of a second counter in each of the messages communicated from the server communications device to the client communications device, the second counter being indicative of the number of messages communicated from the server communications device to the client communications device; and

wherein the step of calculating a respective message authentication code for each of the communicated messages comprises calculating a message authentication code for each of the communicated messages and the corresponding counter value.

22. (Previously Presented) A server communications device including a subscription module, the server communications device comprising communications means for establishing a communications link with a client communications device, and for receiving a number of messages addressing the subscription module from the client communications device via the communications link; and wherein the server communications device comprises processing means for determining, for at least one of the received messages, whether the message is authorized to address the subscription module.